

# TEPHI

TEXAS EPIDEMIC PUBLIC HEALTH INSTITUTE

**SETRAC 13<sup>TH</sup> ANNUAL HEALTHCARE PREPAREDNESS SYMPOSIUM**  
GALVESTON, TX | NOVEMBER 3, 2022

 **UTHealth<sup>®</sup> Houston**

[tephi.texas.gov](https://tephi.texas.gov)



# Objectives

- Explain TEPHI's goals
- Recall TEPHI's strategic areas
- Describe, from your perspective, pain points, training gaps, other needs

# Legislative History

- **Senate Bill 1780 by the 87<sup>th</sup> Legislature (2021)**
  - **Senate author / co-authors: Creighton / Blanco, Miles, & Zaffirini**
  - **House sponsor / co-sponsors: Burrows / Walle & Bonnen**
- **Scope**
  - **Protect public health**
  - **Support pandemic and epidemic disaster preparedness & response**
  - **Establish and maintain public health reserve network**
- **Signed by Governor on 6/16/21**
- **Effective 9/01/21**



# THE UT HEALTH SCIENCE CENTER AT HOUSTON (UTHEALTH HOUSTON)

## Located within UTHealth

- Cizik School of Nursing
- McGovern Medical School
- MD Anderson UTHealth Graduate School of Biomedical Sciences
- School of Dentistry
- School of Biomedical Informatics
- School of Public Health



## Led by the School of Public Health

- 4<sup>th</sup> largest in the nation
- Campus system facilitates collaborations with local stakeholders



# Benefits of Academic Affiliation

- **Access scientific & medical expertise throughout our academic & research enterprise**
- **Robust public health capabilities of the UTHealth Houston SPH**
- **Leverage institutional resources**



# TEPHI's Goals

- Prepare Texas for public health threats related to infectious diseases
- Keep Texans healthy by developing and delivering tools and training
- Maintain a strong Texas economy

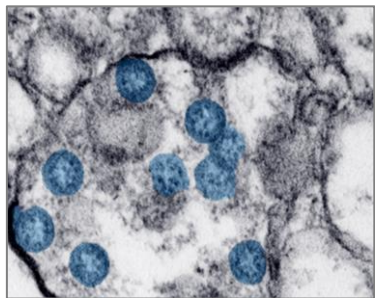
## Collaborations Are Critical

- Governmental agencies at all levels
- Regional and state-wide organizations
- Professional associations
- Business entities
- Academic institutions
- Community organizations
- Faith-based organizations

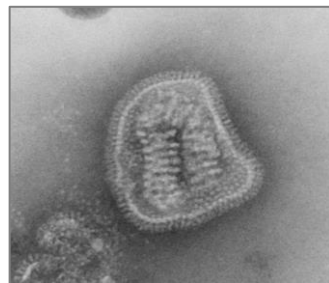


# Infectious Diseases

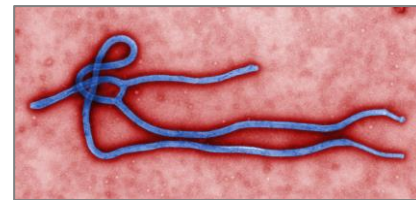
- Constant & costly
- Let's consider recent outbreaks



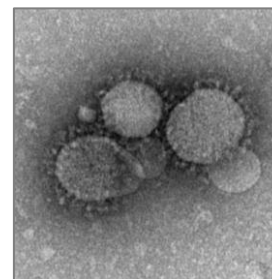
SARS-CoV-2



Influenza



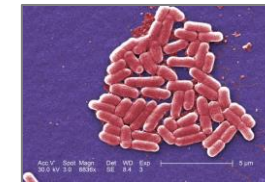
Ebola



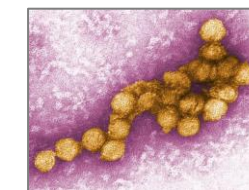
MERS



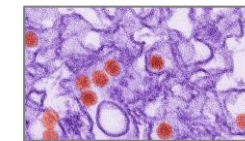
RSV



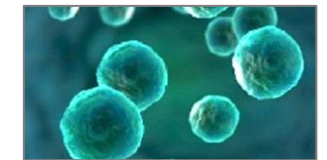
*E. coli*



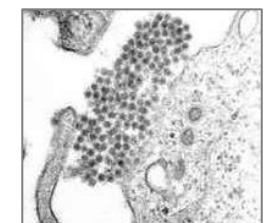
West Nile



Zika



Cyclospora



Dengue

<https://about-cyclospora.com/>

*E. coli*: <https://phil.cdc.gov/details.aspx?pid=10068>

RSV: <https://phil.cdc.gov/Details.aspx?pid=2175>

<https://sites.duke.edu/superbugs/module-5/avian-flu-pandemic-of-tomorrow/biology-of-the-influenza-virus/>

<https://phil.cdc.gov/details.aspx?pid=10701>

<https://www.cdc.gov/media/subtopic/images.htm>

[https://en.wikipedia.org/wiki/Dengue\\_virus#/media/File:Dengue.jpg](https://en.wikipedia.org/wiki/Dengue_virus#/media/File:Dengue.jpg)

<https://www.britannica.com/science/Zika-fever>

[https://www.cdc.gov/vhf/ebola/modules/flexslider/about-ebola.jpg?\\_=90860](https://www.cdc.gov/vhf/ebola/modules/flexslider/about-ebola.jpg?_=90860)

# Strategic Areas

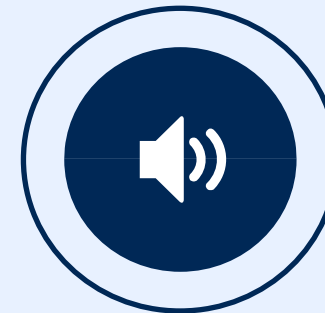
**Training &  
Resources**



**Readiness**



**Communications**



Collaborations:

State, local, federal agencies | Professional Associations | Businesses  
Academic Institutions | Community Organizations | Faith-based Organizations



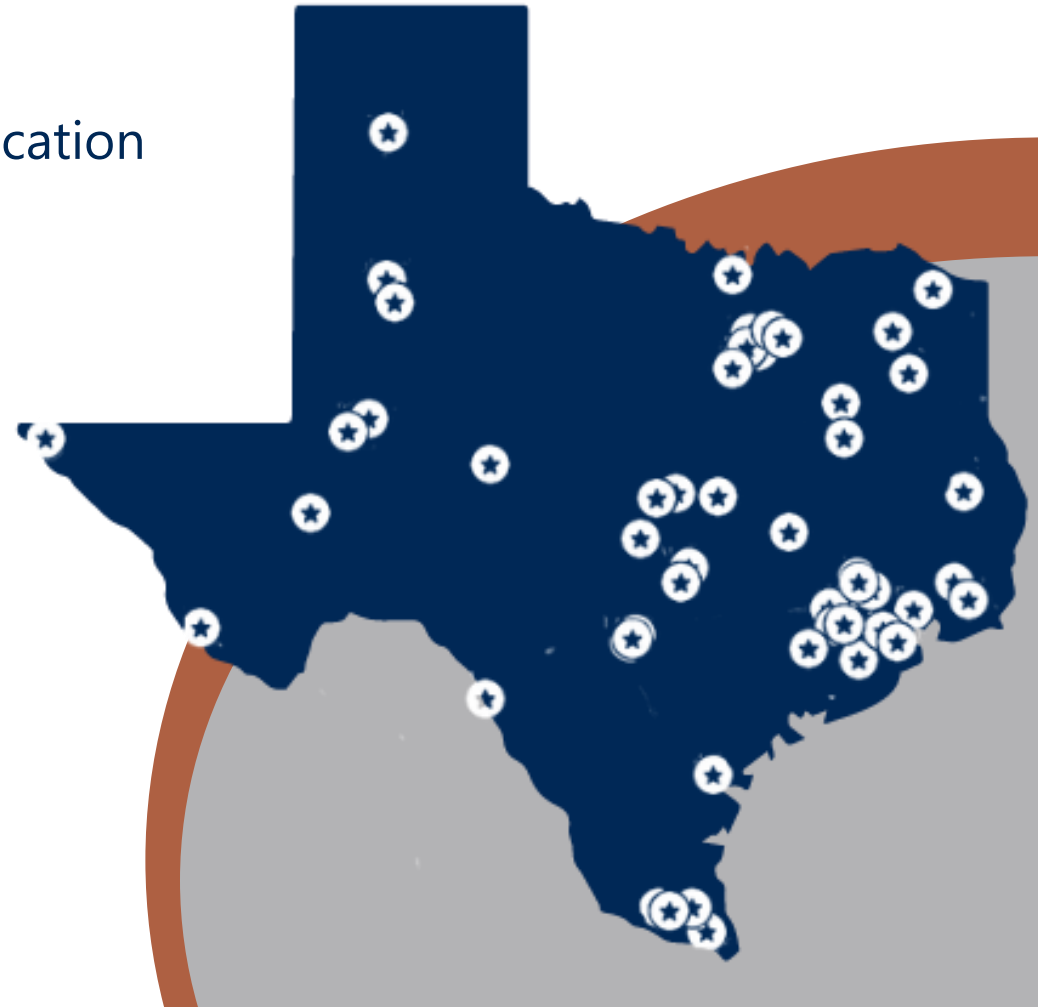
# TRAINING & RESOURCES

## Statewide Public Health Reserve Network

- Certificate in Pandemic Preparedness & Response
- Targeted Trainings & Continuing Professional Education

## Additional Educational Opportunities

- Grand Rounds
- TEPHI Talks
- Texas Public Health Summit
- Technical Assistance



# Readiness

- Early Detection:  
Wastewater, Air, Syndromic
- Data Analysis & Visualization
- Vulnerable Populations
- Business Operations Resiliency
- Food Supply Chain Preparedness
- Rural Healthcare Systems
- Scientific & PH Collaborations
  - Rapid Assessment
  - Laboratory Network



A. Miller, MD, MPH visits SPH students to discuss public health during disasters



SPH hosts CDC EIS Officers  
Houston, TX | March 2017



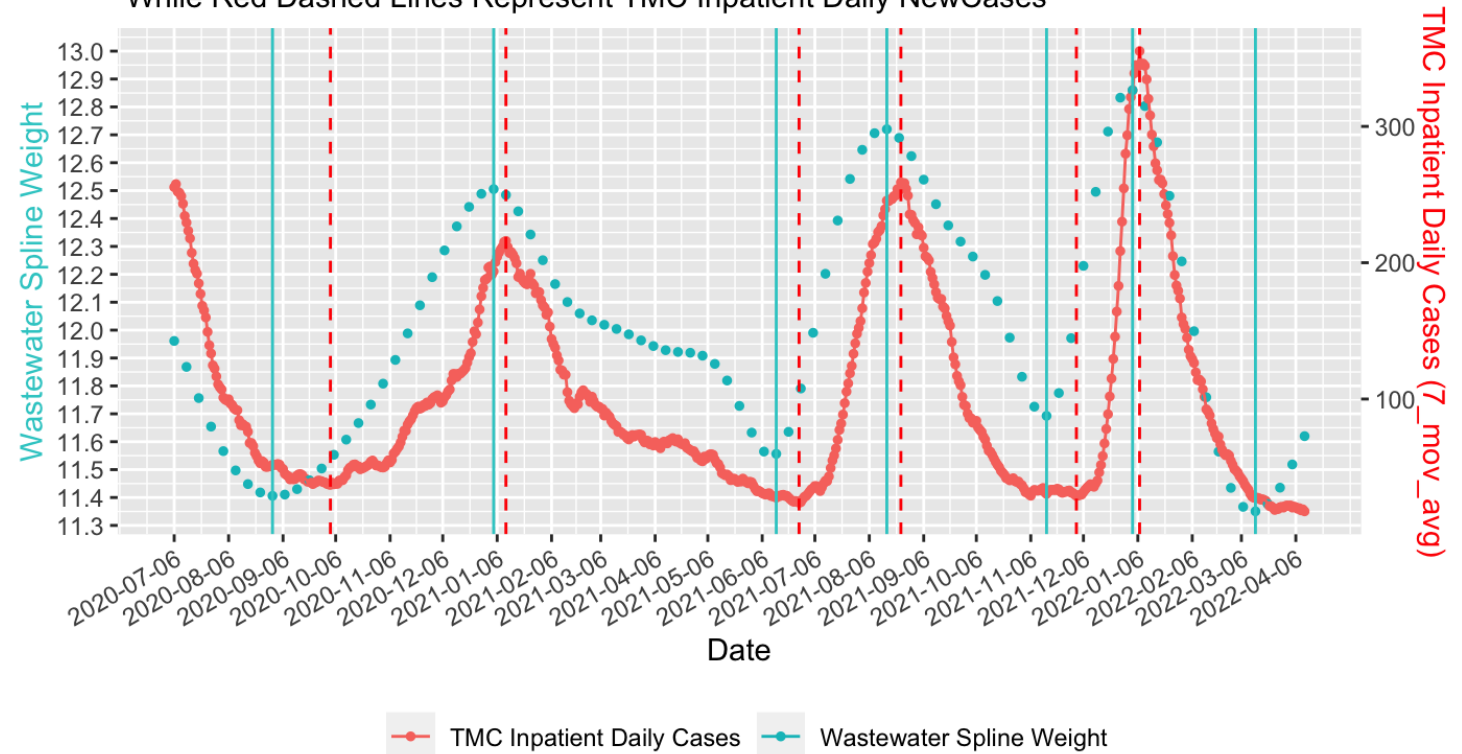
Training & vaccine clinic for dairy workers  
Friona and Muleshoe, TX | March 31, 2021

# Wastewater Monitoring

- Targeted virus detection  
Influenza A & B, RSV, Enterovirus,  
Norovirus, Monkeypox, Polio, WNV,  
Coronavirus variants, HIV, Zika, Dengue
- Agnostic virus detection
- Piloting: Houston & El Paso
- Expanding: Lubbock &  
additional areas of the state

TMC Inpatient Daily Cases Versus CoH Wastewater Spline

Verticle Blue Lines Represent Wastewater\_Spline reach Local Min/Max  
While Red Dashed Lines Represent TMC Inpatient Daily NewCases



# Communications

- Community Outreach Resources
- Health Literacy
- Data Visualization
- Relationship Building

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TEXAS EPIDEMIC PUBLIC HEALTH INSTITUTE



Texas Public Health Summit  
Houston, TX | July 2022



Texas Healthier Summit  
Austin, TX | October 2022  
AND  
In the Exhibit Hall today

  
**UTHealth**<sup>™</sup>  
The University of Texas  
Health Science Center at Houston  
School of Public Health

 The University of Texas at Austin  
**Communication Studies**  
*Moody College of Communication*



# Questions for me?

**Training &  
Resources**



**Readiness**



**Communications**



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# Questions for you

1. Consider the gaps or the pain points in your recent experience. How can you see TEPHI helping to fill those gaps or ease the pain points?
2. What skills or knowledge do you wish you or your team had heading into to the COVID pandemic?
3. What do you see as the most essential needs for successful infectious disease preparedness and response in the future?

# Connect with Us

Janelle Rios, PhD, MPH

Interim Deputy Director  
Janelle.Rios@uth.tmc.edu

TEPHI.Texas.gov

✉ info@tephi.Texas.gov

☎ 866-89-TEPHI



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Houston, TX | July 2022



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